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Figure 1

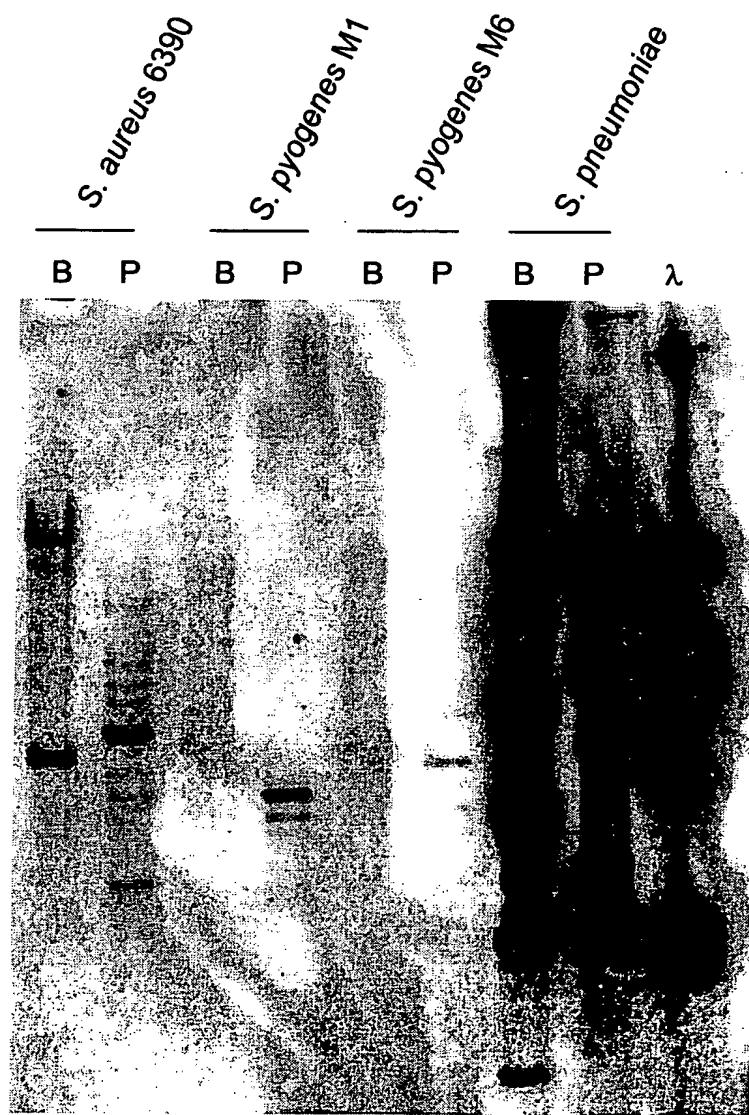




Figure 2 (a)

			10	20	30			
1	V K K T Y G Y - I G S V A A I L L A T H I G S Y O L G K H H					Gas36.pro		
1	V K K T Y G Y - I G S V A A I L L A T H I G S Y O L G K H H					Gbs36.PRO		
1	M K I N K K Y L V G S A A A L I L S - - V C S Y E L G L Y O					Pneumo Sp36.PRO		
			40	50	60			
30	M G S A T K D N Q I A Y I D D S K G K A K A P K T N K T M D					Gas36.pro		
30	M G L A T K D N Q I A Y I D D S K G K V K A P K T N K T M D					Gbs36.PRO		
29	A R T V K E N N R V S Y I D G K Q A T Q K T - - E N L T P D					Pneumo Sp36.PRO		
			70	80	90			
60	Q I S A E E G I S A E Q I V V K I T D Q G Y V T S H G D H Y					Gas36.pro		
60	O I S A E E G I S A E O I V V K I T D Q G Y V T S H G D H Y					Gbs36.PRO		
57	E V S K R E G I N A E O I V V K I T D Q G Y V T S H G D H Y					Pneumo Sp36.PRO		
			100	110	120			
90	H F Y N G K V P Y D A I I I S E E L L M T D P N Y R F K Q S D					Gas36.pro		
90	H F Y N G K V P Y D A I I I S E E L L M T D P N Y H F K Q S D					Gbs36.PRO		
87	H Y Y N G K V P Y D A I I I S E E L L M K D P N Y K L K D E D					Pneumo Sp36.PRO		
			130	140	150			
120	V I N E I L D G Y V I K V N G N Y Y V Y L K P G S K R K N I					Gas36.pro		
120	V I N E I L D G Y V I K V N G N Y Y V Y L K P G S K R K N I					Gbs36.PRO		
117	I V N E V K G G Y V I K V D G K Y Y V Y L K D A A H A D N V					Pneumo Sp36.PRO		
			160	170	180			
150	R T K O O I A E O V A K G T K E A K E E K G L A Q V A H L S K					Gas36.pro		
150	R T K O O I A E O V A K G T K E A K E E K G L A Q V A H L S K					Gbs36.PRO		
147	R T K E E I N R Q - K O E H S O H R E G G T P R - - - - -					Pneumo Sp36.PRO		
			190	200	210			
180	E E V A A V N E A K R Q G R Y T T D D G Y I F S P T D I I D					Gas36.pro		
180	E E V A A V N E A K R Q G R Y T T D D G Y I F S P T D I I D					Gbs36.PRO		
170	- N D G A V A L A R S Q G R Y T T D D G Y I F N A S D I E					Pneumo Sp36.PRO		
			220	230	240			
210	D L G D A Y L V P H G N H Y H Y I P K K D L S P S E L A A A					Gas36.pro		
210	D L G D A Y L V P H G N H Y H Y I P K K D L S P S E L A A A					Gbs36.PRO		
199	D T G D A Y I V P H G D H Y H Y I P K N E L S A S E L A A A					Pneumo Sp36.PRO		
			250	260	270			
240	O A Y W S Q K O G R G A R P S D Y R P T P A P A P G R R K A					Gas36.pro		
240	O A Y W S Q K O G R G A R P S D Y R P T P A - - P G R R K A					Gbs36.PRO		
229	F A F L S G R - G N L S N S R T Y R R - Q N S D N T S R T N					Pneumo Sp36.PRO		
			280	290	300			
270	P I P D V T P N P G Q G H Q P D N G G Y H P A P P R P N D A					Gas36.pro		
268	P I P D V T P N P G Q G H Q P D N G G Y H P A P P R P N D A					Gbs36.PRO		
257	W V P S V S - - - - - N P G T T N T N T S					Pneumo Sp36.PRO		
			310	320	330			
300	S O N K H Q R D E F K G K T F K E L L D O L H R L D L K Y R					Gas36.pro		
298	S O N K H Q R D E F K G K T F K E L L D O L H R L D L K Y R					Gbs36.PRO		
273	N N S N T N S Q A S O S N D I D S L L K O L Y K L P L S O R					Pneumo Sp36.PRO		



Figure 2 (b)

	340	350	360	
330	H V E E D G L I F E P T O V I K S N A F G Y V V P H G D H Y			Gas36.pro
328	H V E E D G L I F E P T O V I K S N A F G Y V V P H G D H Y			Gbs36.PRO
303	H V E S D G L V F D P A Q I T S R T A R G V A V P H G D H Y			Pneumo Sp36.PRO
	370	380	390	
360	H I I P R S Q L S P L E M E L A D - - - R Y L A G O - - -			Gas36.pro
358	H I I P R S Q L S P L E M E L A D - - - R Y L A G O - - -			Gbs36.PRO
333	H F I P Y S O M S E L E E R I A R I I P L R Y R S N H W V P			Pneumo Sp36.PRO
	400	410	420	
383	T E D D D S G S D H S K P S D K E V T H T F L G H R I K A Y			Gas36.pro
381	T D D N D S G S D H S K P S D K E V T H T F L G H R I K A Y			Gbs36.PRO
363	D S R P E O P S P Q P T P E P S P G P Q P A P N L K I D S N			Pneumo Sp36.PRO
	430	440	450	
413	G K G L D G K P Y D T S D A Y V F S K E S I H S - V D K S G			Gas36.pro
411	G K G L D G K P Y D T S D A Y V F S K E S I H S - V D K S G			Gbs36.PRO
393	S S L V S Q L V R K V G E G Y V F E E K G I S R Y V F A K D			Pneumo Sp36.PRO
	460	470	480	
442	V T A K H G D H F H Y - I G F G E L E Q Y E L D E V A N W V			Gas36.pro
440	V T A K H G D H F H Y - I G F G E L E Q Y E L D E V A N W V			Gbs36.PRO
423	L P S E T V K N L E S K L S K O E S V S H T L T A K K E N V			Pneumo Sp36.PRO
	490	500	510	
471	K A K G O A - - D E L A A A A L D O E Q G K E K P L F D T K K			Gas36.pro
469	K A K G O A - - D E L V A A L D O E Q G K E K P L F D T K K			Gbs36.PRO
453	A P R D O E F Y D K A Y N L L T E A H - - - K A L F E N K G			Pneumo Sp36.PRO
	520	530	540	
499	V S R K V T K D G K V G Y M M P K D G K D Y F Y A R D O L D			Gas36.pro
497	V S R K V T K D G K V G Y I M P K D G K D Y F Y A R Y Q L D			Gbs36.PRO
480	R N S D F Q A L D K L L E R L N D E S T N I - - - [K E K L V			Pneumo Sp36.PRO
	550	560	570	
529	L T Q I A F - - - A E O E L M L K D K K H Y R Y D I V D T			Gas36.pro
527	L T Q I A F - - - A E O E L M L K D K K H Y R Y D I V D T			Gbs36.PRO
506	D D L L A F L A P I T H P E R L G K P N S O I E Y T E D E V			Pneumo Sp36.PRO
	580	590	600	
555	G I E P R L A - - - V D V S S L P M H A G N A T Y D T G S S			Gas36.pro
553	G I E P R L A - - - V D V S S L P M H A G N A T Y D T G S S			Gbs36.PRO
536	R I - A O L A D K Y T T S D G Y I F D E H D I I S D E G D A			Pneumo Sp36.PRO
	610	620	630	
582	F V I P H I D H I H V V P Y S W L T - R D O I A T I K Y V M			Gas36.pro
580	F V I P H I D H I H V V P Y S W L T - R N O I A T I K Y V M			Gbs36.PRO
565	Y V T P H M G H S H W I G K D S L S D K E K V A A Q A Y T K			Pneumo Sp36.PRO
	640	650	660	
611	O H P E V R P - - - D I W S K P G H E E S G S V I P N V T			Gas36.pro
609	O H P E V R P - - - D V W S K P G H E E S G S V I P N V T			Gbs36.PRO
595	E K G I L P P S P D A D V K A N P T G O S A A A I Y N R V K			Pneumo Sp36.PRO



Figure 2 (c)

670	680	690			
637 P L D K R A G M P N W Q - I I H S A E E V Q K A L A E G R F 635 P L D K R A G M P N W Q - I I H S A E E V Q K A L A E G R F 625 G - E K R I P L V R L P Y M V E H T V E V K N G - - - - -			Gas36.pro Gbs36.PRO Pneumo Sp36.PRO		
700			710	720	
666 A T P D G Y I F D P R D O V L A K E T F V W - K D G S F S I P 664 A A P D G Y I F D P R D O V L A K E T F V W - K D G S F S I P 648 - - - - - N L I I P H K D H Y H N I K F A W F D D H T Y K A P					Gas36.pro Gbs36.PRO Pneumo Sp36.PRO
730			740	750	
695 R A D G S S L R T I - - - - - N K S D L S Q A E 693 R A D G S S L R T I - - - - - N K S D L S Q A E 674 - - N G Y T L E D L F A T I K Y Y V E H P D E R P H S N D G					Gas36.pro Gbs36.PRO Pneumo Sp36.PRO
760			770	780	
714 W Q Q A Q O E - L L A K K N A G D A T D T D - K P K E E K Q Q A 712 W Q Q A Q O E - L L A K K N A G D A T D T D - K P K E E K Q Q A 702 W G N A S E H V L L G K K D H S E D P N K N F K A D E E P V E					Gas36.pro Gbs36.PRO Pneumo Sp36.PRO
790			800	810	
742 D K S N E N Q O P - - - S E A S K E E E K E S D D F I D S L 740 D K S N E N Q O P - - - S E A S K E E - K E S D D F I D S L 732 E T P A E P E V P O V E T E K V E A O L K E A E V L L A K V					Gas36.pro Gbs36.PRO Pneumo Sp36.PRO
820			830	840	
769 P D Y G L D R A T L E D H I N O L A Q K A N I D P K Y L I F 766 P D Y G L D R A T L E D H I N O L A Q K A N I D P K Y L I F 762 T D S S L - K A N A T E T L A G L R N N L T L Q - - - I M					Gas36.pro Gbs36.PRO Pneumo Sp36.PRO
850			860	870	
799 Q P E G V Q F Y N K N G E L L V T Y - - - D I K T L Q Q I N 796 Q P E G V Q F Y N K N G E L L V T Y - - - D I K T L Q Q I N 787 D N N S I M - - A E A E K L L A L L K G S N P S S V S K E K					Gas36.pro Gbs36.PRO Pneumo Sp36.PRO
—					
825 P . 822 P . 815 I N					Gas36.pro Gbs36.PRO Pneumo Sp36.PRO



Figure 3

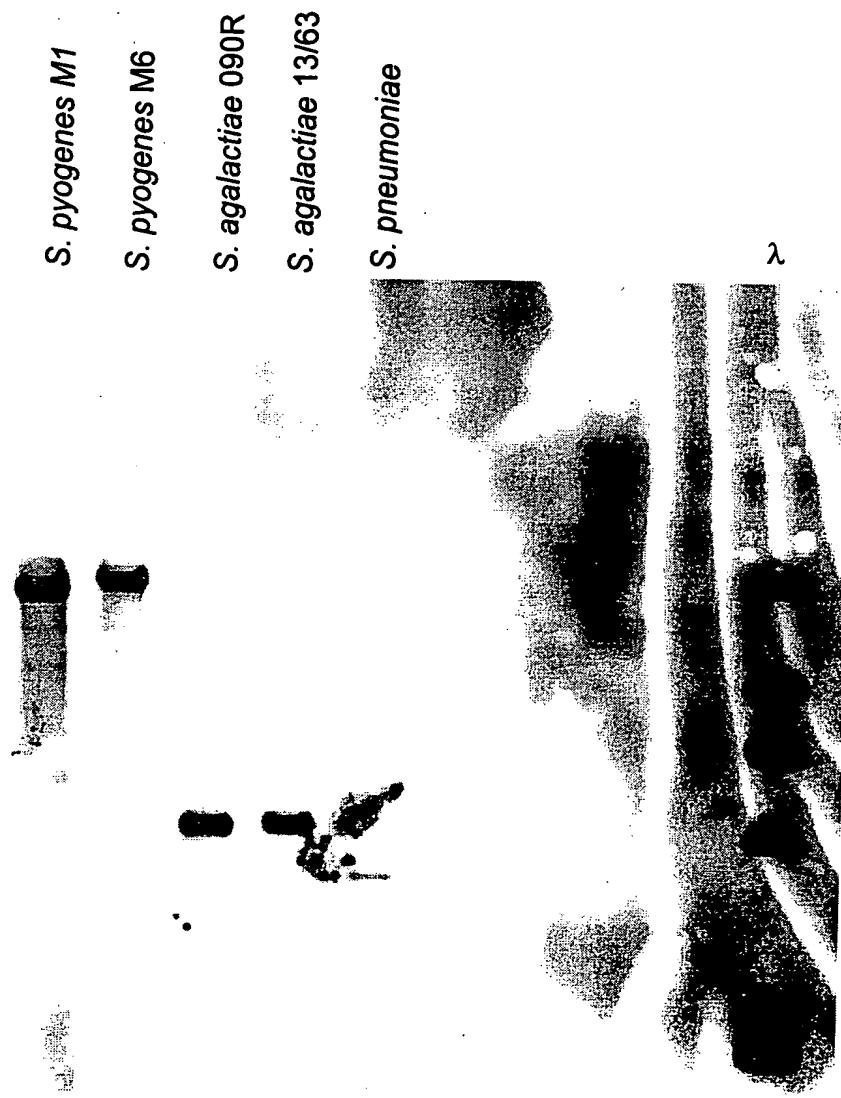
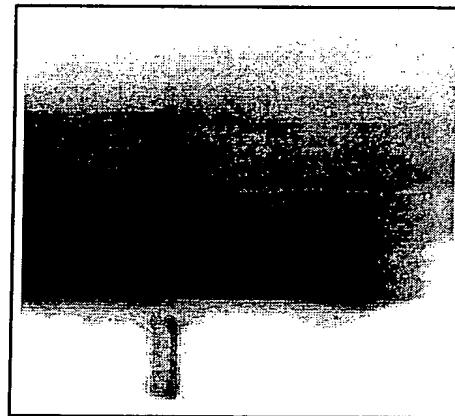




Figure 4



Control
Sp36 GBS
Sp36
SJ2 6b



Figure 5A

VKKTYGYIGS VAAILLATHI GSYQLGKHHM GSATKDQIA YIDDSKGKAK APKTNKTMDO ISAEFGISAE 70
QIVVKITDQG YVTSHGHDHYH FYNGKVPYDA IISSEELLMTD PNYRFKQSVD INEILDGYVI KVNGMNYVYL 140
KPGSKRKNIR TKQQIAEQVA KGTKEAKEKG LAQVAHLSKE EVAAVNEAKR QGRYTTDDGY IFSPTDIIDD 210
LGDAYLVPHG NHYHYIPKKD LSPSELAAQ AYWSQKQGRG ARPSDYRTP APAPGRRKAP IPDVTPNPGQ 280
GHQPDNGGYH PAPPNPDAS QNKHQREDFK GKTKEELLDQ LHRLDLKYRH VEEDGLIFEP TQVIKSNAFG 350
YVVPHGDHYH LIPRSQSLSP EMELADRYLA QTEDDDSGS DHSKPSDKEV THFLGHRIK AYGKGLDGKP 420
YDTSDAYVFS KESTHSVDKS GVTAKHGDHF HYIGFGELEQ YELDEVANWV KAKGQADELA AALDQEQQKE 490
KPLFDTKKVS RKVTKDGKVY YMMPKDGDY FYARDQQLLT QIAFAEQELM LKDKKHRYRD IVDTGIEPRL 560
AVDVSSLPMH AGNATYDTGS SFV1PHIDHI HVPYSWLTR DOIATIKYVM OHPEVRPDIW SKPGHEEESGS 630
VIPNVTPLDK RAGMPNWQII HSAEEVQKAL AEGRFATPDG Y1FDPRDVLA KETFWKDGS FSIPRADGSS 700
LRTINKSDLQ QAEWQQAQEL LAKKNAGDAT DTDKPKEKQQ ADKSNNENQQP SEASKEEEKE SDDF1DSLKD 770
YGLDRATILED HINQLAQKAN IDPKYLLIFQP EGVQFYNKNG ELVITYDIKTL QQINP 825

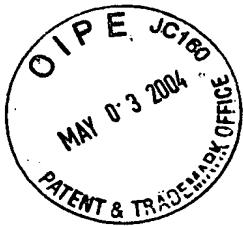


Figure 5B

MKTKKVILV GLLSSQLTL IACQSRGNGT YPIKTQSRK GMTSNKIKPI KKSKKTNKTH KGVAGVDFPT 70
DDGFILTDS KILSKTDQGI VVDHDGHSHF IFYADLKGSF FEYLIPKGAS LAKPAVAQRA ASQGTTSKVAD 140
PHHYEFNPA DIVAEDALGY TVRHDDHFHY ILKSSLSGQT QAAQAKQVATR LPQTSSLVST ATANGIPGLH 210
FPTSDGFQFN GQGIVGVTKD SILVHDGHL HPISFADLHQ GCAWAHVADQY DPAKKAEKPA ETHOTPELSE 280
REKEYQEKLIA YLAEKLQGIDP STIKRVEIQD GKLGLEYPHH DHAHVLMILSD IEIGKDI PDP HALEHARELE 350
KHKVGMDTLR ALGFDEEVTL DIVRTHDAPT PFPSENKDPN MMKEWLATVI KLDLGSRKDP LQRKGSLLLP 420
NLETLGIGFT PIKDISPVLQ FKKLKQLIMT KTGVTDYRFL DNMPQLEGID ISQNNLKDJS FLSKYKNLTL 490
VAAADNGIED IRPLGQLPNL KFLVLISNNKI SDLSPPLASLH QLQELHIDNN QITDLSPVSH KESLTUVDSL 560
RNADVDLATL QAPKLETLMV NDTKVSHLDF LKNNPNLSSL SINRAQLQLS EGIEASSVIV RVEAEGNQIK 630
SLVLKDKQGS LTFLDVGTGNQ LTSLEGVNNF TALDILSVSK NQLTNVNLSK PNKTVTNIDI SHNNNISLADI 700
KLINEQHTEA IAKNFPAVYE GSMVGNGTAE EKAAMATKAK ESAQEASESH DYNHNHTYED EEEGAHEHRD 770
KDDDHDEHEED ENEAKDEQNH AD 792

80/9

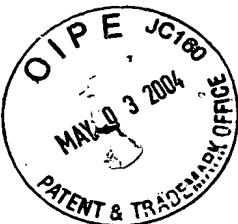


Figure 5C

VKKTYGYIGS VAAILLATHI GSYQLGKHM GLATKDNOIA YIDDSKGKVK APKTNKTMDQ ISAEGISAE 70
QIVVKITIDQG YVTSHGDHYH FYNGKVYDA IISSEELMTD PNYHFQSDV INEILDGYVI KVNGNYYVYL 140
KPGSKRKNIR TKQJIAEQVA KGTKEAKEKG LAQVAHLSKE EVAAVNEAKR QGRYTTDDGY IFSPTDIIDD 210
LGDAYLVPFG NHYHYIPKDD LSPSELAAAO AYWSQKQGRG ARPSDYRPTP APGRRKAPIP DVTPPNPGQGH 280
QPDNNGGYHPA PPRPNDASQN KHORDEFKGK TFKELLDQLH RLDLKRYRIVE EDGLIFEPTQ VIKSNAFGVV 350
VPHGDDHYHII PRSQLSPLM ELADRYLAGQ TDDNDGSDDH SKPSDKEWTH TFLGHRIKAY GKGLDGKPYD 420
TSDAYVFSKE SIHSVDKSGV TAKHGDHFHY IGFGELEQYE LDEEVANWVKA KGQADELVAA LDQEQQGKEKP 490
LFDTKKVSRK VTKDGKVGXI MPKDQKDIFY ARYQOLDLTQI AFAEQELMLK DKKHYRYDIV DTGIEPRLAV 560
DVSSLPMHAG NATYDTGSSF VIPHIDHIHV VPYSWLTRNQ IATIKYVMQH PEVRPDVWSK PGHEEESGSVI 630
PNTVTPLDKRA GMWNWQLIHS AEEVQKALLAE GRFAAAPDGYI FDPRDVLAKE TFVWKDGSSFS IPRADGSSLR 700
TINKSDLSQLA EWQQAQELLA KKNAGDATDT DKPEEKQQAD KSNNENQQPSE ASKEEKESESDD FIDSILPDYGL 770
DRATLEDHIN QLAQKANIDP KYLIFQPEGV QFYNKNGELV TYDIKTLQQI NP 822